REMARKS/ARGUMENTS

Claims 65, 66 and 68-77 have been amended and claim 67 has been canceled. The application now contains claims 65, 66 and 68-77.

The Examiner objected to the drawings alleging the specification at page 7, lines 8-9 indicates it shows what was known in the prior art. These lines refer to item 12 in Figure 1. Item 12 is only one component of the overall system depicted in Figure 1. The description of Figure 1 begins on P. 7 at line 5 and indicates "Referring to Figure 1, a system according to a first embodiment of the invention ... is shown generally at 10. Together, the components shown in Figure 1 are configured into a new system that is not in the prior art, even though some components shown therein may be in the prior art. Consequently, Applicants respectfully submit it would be inappropriate to label Figure 1 as "prior art."

The Examiner objected to the disclosure alleging it contains an embedded hyperlink and/or other form of browser executable code. Applicants respectfully submit the asserted hyperlink is merely a textual representation of a website at which an example of baseline correction can be obtained. This textual representation contains no executable code, is not an active hyperlink and is not intended to be so. It is included merely as a reference to a website. As such, Applicants respectfully request the Examiner permit this textual representation to remain in the specification.

The Examiner stated there is no statement of continuing data on page 1 of the specification. The specification has been amended to indicate that this application is a divisional of US 10/416,988 filed May 16, 2003.

The Examiner objected to the Abstract as being greater than 150 words, containing purported merits, and requiring deletion of the last line thereof. Applicants have amended the Abstract to more particularly relate to the invention claimed, with less than 150 words, no purported merits and deletion of the last line and other lines thereof.

The Examiner objected to the information disclosure statement because, other than the Abstract, WO 98/39664 is not in the English language. Applicants do not have an English language translation of the full document.

The Examiner indicated that the reference to "Brent's Method" in the disclosure is not a proper information disclosure statement. Applicants respectfully submit that this reference is not material to the examination of the application.

Claim rejections 35 USC 112

Claims 65-77 are rejected under 35 USC 112, second paragraph as being indefinite. Claim 67 has been canceled and therefore, the rejection as it pertains to claim 67 is overcome.

In claims 65, 67, 74, 75, 76 and 77, the Examiner objected to the language "as a function of." In each of claims 65, 74, 75, 76 and 77, Applicants have changed the offending language to "in response to."

In claims 65, 67, 74, 75, 76 and 77 the Examiner objected to the language "a reference spectrum" and "a base reference spectrum." The preambles of claims 65, 74, 75, 76 and 77 have been amended to indicate that "the reference spectrum is for a reference solution having a first pH condition." In the context of these claims, it is clear that a position value for a peak of the reference spectrum is produced in response to measured pH and a property of a peak in a base reference spectrum. The word "base" distinguishes the base reference spectrum from the reference spectrum that is being produced.

The Examiner noted that claim 65 from which claims 67-73 ultimately depend, recites "A computer-implemented process", whereas the remaining claims recite simply " the process of claim 65." Claims 68-73 have been amended to recite a computer-implemented process.

In claims 67 and 68, the Examiner perceived an antecedent problem with the words "sample" and "test sample." Claim 68 has been amended to refer to "test sample" to agree with the antecedent by the same name in claim 65.

In claim 68, the Examiner perceived an antecedent problem with the words "condition" and "measured condition." Both claims 65 and 68 have been amended to refer to "measured pH condition."

In claim 69, the Examiner perceived an antecedent problem with the words "a reference spectrum", which Applicants have amended to read "said reference spectrum" to more clearly refer to that of claim 65.

Also in claim 69, the Examiner perceived an antecedent problem with the words "position value", which Applicants have amended to read "said position value in said record" to more clearly refer to the position value introduced in that claim.

Also in claim 69, the Examiner perceived an antecedent problem with the words "said record" and "said pre-defined record." Applicants have amended claim 69 such that all occurrences of said record refer to said "pre-defined record."

In claim 70, the Examiner perceived an antecedent problem with the words "said function" and "said condition value dependent function." Applicants have amended claim 70 such that all occurrences of "said function" refer to "pH condition value dependent function."

The Examiner objected to claim 74 alleging it is not clear how the functionality of the computer readable medium is being realized if the instructions are not being executed. Applicants respectfully submit the rejection is improper because the USPTO Examination Guidelines for Computer-Related Inventions Final Version states at IV. B. 1. (a) (p.9, second paragraph) "...a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus statutory." For clarity, Applicants have amended claim 74 to more particularly recite that the computer readable medium is encoded with computer readable instructions, to more closely follow the accepted form of language set forth in above mentioned guidelines. While the guidelines provide the above quote in connection with statutory subject matter, and while the Examiner's objection relates to clarity and not statutory subject matter, it is respectfully submitted that the form of claim provided by the Applicants follow USPTO practice and that the realization of the functionality of a computer readable medium encoded in a particular way is understood when claimed in the manner provided by the Applicants. Thus, the rejection is overcome.

In claim 77, the Examiner perceived an antecedent problem with the words "a derived reference spectrum." Applicants have amended claim 77 to remove the word "derived."

Also in claim 77, the Examiner perceived an antecedent problem with the words "position" and "position value." Occurrences of "position" have been replaced with "position value."

Also in claim 77, the Examiner perceived an antecedent problem with the words "a base reference spectrum" in line 10 and in this regard, the offending language has been amended to recite "said base reference spectrum" to refer to the base reference spectrum recited earlier in the claim.

In view of the foregoing, Applicants respectfully submit that the rejections under 35 USC 112, second paragraph are overcome.

The Examiner objected to claim 76 under 35 USC 112, first paragraph alleging the claim recites solely a single means (processor circuit programmed to..") and therefore, the claim is of undue breadth. Applicants respectfully submit that the claim is not directed to a single means as it recites a processor circuit programmed to produce a position value.... Beginning at page 20, line 25, the specification refers to block 320 that directs the SAA [14] to perform certain functions, which are described on page 21 in language similar to that of claim 76. On page 13 the SAA [14] is stated as being a Linux workstation or being implemented by the workstation 16, both of which are known to include processor circuits. It would be appreciated by one of ordinary skill in the art that block 320 effects the programming of the processor circuit in the Linux workstation and/or the workstation 16 and thus, the language of the claim is supported by the disclosure. A processor circuit is a specific apparatus and a written description of same is provided in the specification and therefore, the claim is not of undue breadth and satisfies the requirements of 35 USC 112, 1st paragraph. By the claim language used, Applicants are not seeking to cover every conceivable means for achieving a result, only processor circuits that are programmed to perform the functions recited in the claim. Therefore, Applicants respectfully submit that the rejection is improper.

Claim rejections 35 USC 102

The Examiner has rejected claims 65, 66 and 68-77 under 35 USC 102(b) as being anticipated by Otvos (5,343,389).

For the Otvos reference to anticipate the indicated claims, the reference must explicitly or inherently disclose every limitation of the claims. After the amendments herein, Applicants respectfully submit that Otvos fails to disclose every imitation of the claims.

For example, Applicant's amended claim 65 recites:

> **65.** A computer implemented process for producing a representation of a reference spectrum for a reference solution having a first pH condition, for use in determining the composition of a test sample, the process comprising:
>
> producing a position value for at least one peak of the reference spectrum in response to a measured pH condition of the test sample, and a property of at least one peak in a base reference spectrum for the reference solution, the base reference spectrum being associated with a pH condition of the reference solution that is different from said measured pH condition.

Otvos discloses using stored reference NMR spectra to form a lineshape that best fits the NMR spectrum of the sample. Operations to prepare the reference spectra for use appear to be described at col 9, lines 7-35 and col 11, lines 19-53. Nowhere is there any disclosure or suggestion to adjust the reference spectra in response to measured pH of the test sample whose composition is to ultimately be determined. In particular, Otvos fails to disclose "producing a position value for at least one peak of the reference spectrum in response to a measured pH condition of the test sample and a property of at least one peak in a base reference spectrum for the reference solution. Consequently, Otvos fails to disclose each and every element of the claimed combination and therefore, the rejection at it pertains to claim 65 is overcome.

Claim 66 recites:

66. The computer-implemented process of claim **65** wherein producing a position value comprises interpolating said position value from position values associated with base reference spectra associated with a pH condition nearest to said measured condition.

In addition to the subject matter claimed in claim 65, from which claim 66 depends, Otvos fails to disclose interpolating and more particularly, interpolating based on position values associated with base reference spectra associated with a pH condition nearest to said measured condition. Therefore, the rejection is overcome.

Claim 68 recites:

68. The computer-implemented process of claim **65** wherein producing a position value comprises producing said position value by addressing a lookup table of position values with a measured pH condition value representing said measured pH condition of said test sample.

In addition to the subject matter claimed in claim 65, from which claim 66 depends, Otvos fails to disclose addressing a lookup table of position values with a measured pH condition value representing said measured pH condition of said test sample. Therefore, the rejection is overcome.

The rejection of claim 69 is overcome by the amendments to claim 65 from which it depends and due to the additional subject matter it claims.

Claim 70 recites:

70. The computer-implemented process of claim **69** wherein adjusting comprises locating a pH condition value dependent function in said pre-defined record, producing said position value from said pH condition value dependent function and associating said position value with said pre-defined record.

In addition to the subject matter claimed in claim 65, from which claim 70 ultimately depends, Otvos fails to disclose locating a pH condition value dependent function in said pre-defined record, producing said position value from said pH condition value dependent

function and associating said position value with said pre-defined record. Therefore, the rejection of claim 70 is overcome.

Claim 71 recites:

71. The computer-implemented process of claim **70** wherein associating comprises storing said position value in said pre-defined record.

In addition to the subject matter claimed in claim 65, from which claim 71 ultimately depends, Otvos fails to disclose storing said position value in said pre-defined record. Therefore, the rejection of claim 71 is overcome.

Claim 72 recites:

72. The computer-implemented process of claim **69** wherein adjusting comprises locating in said pre-defined record a link to a lookup table specifying peak positions for various pH conditions and retrieving said position value from said lookup table and associating said position value with said pre-defined record.

In addition to the subject matter claimed in claim 65, from which claim 72 ultimately depends, Otvos fails to disclose locating in said pre-defined record a link to a lookup table specifying peak positions for various pH conditions and retrieving said position value from said lookup table and associating said position value with said pre-defined record. Therefore, the rejection of claim 72 is overcome.

Claim 73 recites:

73. The computer-implemented process of claim **72** wherein associating comprises storing said position value in said pre-defined record.

In addition to the subject matter claimed in claim 65, from which claim 73 ultimately depends, Otvos fails to disclose storing said position value in said pre-defined record. Therefore, the rejection of claim 73 is overcome.

Claim 74 recites a computer readable medium encoded with computer readable instructions for causing a processor circuit to execute the method of claim 65. Thus, the rejection of claim 74 is overcome for the same reasons as claim 65.

Claim 75 recites a signal encoded with computer readable instructions operable to cause a processor circuit to execute the method of claim 65. Thus, the rejection of claim 75 is overcome for the same reasons as claim 65.

Claim 76 recites an apparatus comprising a processor circuit programmed to carry out the method of claim 65. Thus, the rejection of claim 76 is overcome for the same reasons as claim 65.

Claim 77 recites an apparatus comprising means for performing steps similar to those recited in claim 65. Thus, the rejection of claim 77 is overcome for the same reasons as claim 65.

In view of the foregoing, the rejection of claims 65, 66 and 68-77 under 35 USC 102(b) is overcome.

Claim rejections 35 USC 103

The Examiner has rejected claim 67 under 35 USC 103(a) as being unpatentable over Otvos (US 5,343,389, as above) in view of "Checking pH without and Electrode" (Sykes et al., hereinafter "Sykes")

Claim 67 has been Canceled and therefore, the rejection is overcome.

Applicants are aware of nothing that would suggest the subject matter of the various claims was not commonly owned at the time any inventions covered therein were made.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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